

FIG. 1

Inventor(s): Michael Kahn et al.  
 Title: METHODS AND APPARATUS FOR  
 SWITCHING FROM A NON-MODULE TUNING  
 MODE TO A MODULE TUNING MODE IN A  
 CABLE TELEVISION RECEIVER  
 Attorney Docket No.: MATP-649US

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	Bits	Bytes	Format
network_info_table_section(){			
table_ID	8	1	uimsbf value 0xC2
zero	2	2	bslbf
reserved	2		bslbf
section_length	12		uimsbf
zero	3	1	bslbf
protocol_version	5		Sec. 4.4.1
first_index	8	1	uimsbf range 1-255
number_of_records	8	1	uimsbf
transmission_medium	4	1	uimsbf
table_subtype	4		uimsbf see Table 5.2
for (i=0; i<number_of_records; i++) {			
if (table_subtype==CDS) {			
CDS_record()		((5))	
}			
if (table_subtype==MMS) {			
MMS_record()		((6))	
}			
descriptors_count	8	(1)	uimsbf range 0-255
for (i=0; i<descriptors_count; i++) {	*	((*))	optional
descriptor()			
}			
for (i=0; i<N; i++) {			
descriptor()	*	(*)	optional
}			
CRC_32	32	4	rpchof

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FIG. 2

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	Bits	Bytes	Format
CDS_record(){			
number_of_carriers	8	1	uimsbf
spacing_unit	1	2	bslbf see Table 5.4
zero	1		bslbf
frequency_spacing	14		uimsbf range 1-16,383 units of 10 or 125kHz
frequency_unit	1	2	bslbf see Table 5.5
first_carrier_frequency	15		uimsbf range 0-32,767 units of 10 or 125kHz

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FIG. 3

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FIG. 4

	Bits	Bytes	Format
MMS_record(){			
transmission_system	4	1	uimsbf see Table 5.7
inner_coding_mode	4		uimsbf see Table 5.8
split_bitstream_mode	1	1	bslbf {no, yes}
zero	2		bslbf
modulation_format	5		uimsbf see Table 5.9
zero	4	4	bslbf
symbol_rate	28		uimsbf units: symbols per sec.
}			

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	Bits	Bytes	Format
shortform_virtual_channel_table_section(){			
table_ID	8	1	uimsbf value 0xC4
zero	2	2	bslbf
reserved	2		bslbf
section_length	12		uimsbf
zero	3	1	bslbf
protocol_version	5		see Sec. 4.4.1
transmission_medium	4	1	uimsbf
table_subtype	4		uimsbf see Table 5.14
VCT_ID	16	2	uimsbf
if (table_subtype==DCM) {	*	(*)	
DCM_structure()			
}			
if (table_subtype==VCM) {	*	(*)	
VCM_structure()			
}			
if (table_subtype==ICM) {	*	(*)	
ICM_structure()			
}			
for (i=0; i<N; i++) {	*	(*)	optional
descriptor()			
}			
CRC_32	32	4	rpchof
}			

FIG. 5

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	Bits	Bytes	Format
DCM_structure(){ zero	4	2	bslbf
first_virtual_channel	12		uimsbf range 0-4095
zero	1	1	bslbf
DCM_data_length	7		uimsbf range 1-127
for (i=0; i<DCM_data_length; i++) { range_defined	1	(1)	bslbf {no, yes}
channels_count	7		uimsbf range 1-127
}			

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FIG. 6

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	Bits	Bytes	Format
VCM_structure(){ zero	2	1	bslbf
descriptors_included	1		bslbf {no, yes}
zero	5		bslbf
splice	1	1	bslbf {no, yes}
zero	7		bslbf
activation_time	32	4	bslbf
number_of_VC_records	8	1	uimsbf
for (i=0; i<number_of_VC_records; i++) { virtual_channel[i]	*	(*)	
}			

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FIG. 7

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	Bits	Bytes	Format
virtual_channel(){			
zero	4	2	bslbf
virtual_channel_number	12		uimsbfrange 0-4095
application_virtual_channel	1	1	bslbf {no, yes}
zero	1		bslbf
path_select	1		bslbf see Table 5.18
transport_type	1		bslbf see Table 5.19
channel_type	4		uimsbf see Table 5.20
if(application_virtual_channel){			
application_ID	16	(2)	
} else {			
source_ID	16	(2)	
if(transport_type==MPEG_2){			
CDS_reference	8	((1))	uimsbfrange 1-255
program_number	16	((2))	
MMS_reference	8	((1))	uimsbfrange 1-255
} else { /* non-MPEG_2 */			
CDS_reference	8	((1))	uimsbfrange 0-255
scrambled	1	((1))	bslbf {no, yes}
zero	3		bslbf
video_standard	4		uimsbf see Table 5.21
zero	16	((2))	bslbf
}			
if(descriptors_included){			
descriptors_count	8	(1)	uimsbf
for(i=0;i<descriptors_count;i++){			
descriptor()	*	((*))	
}			
}			
}			

FIG. 8

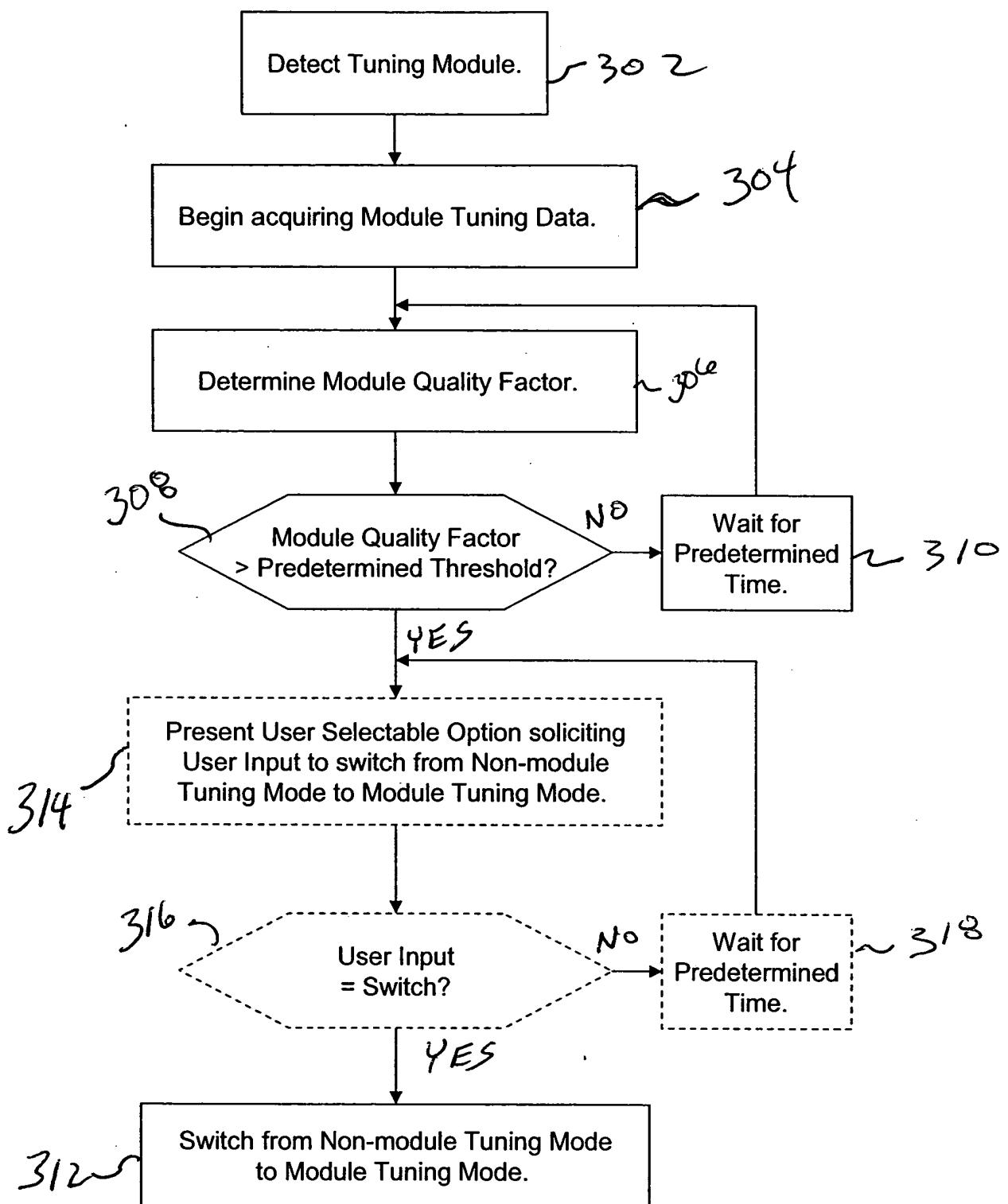


FIG. 9

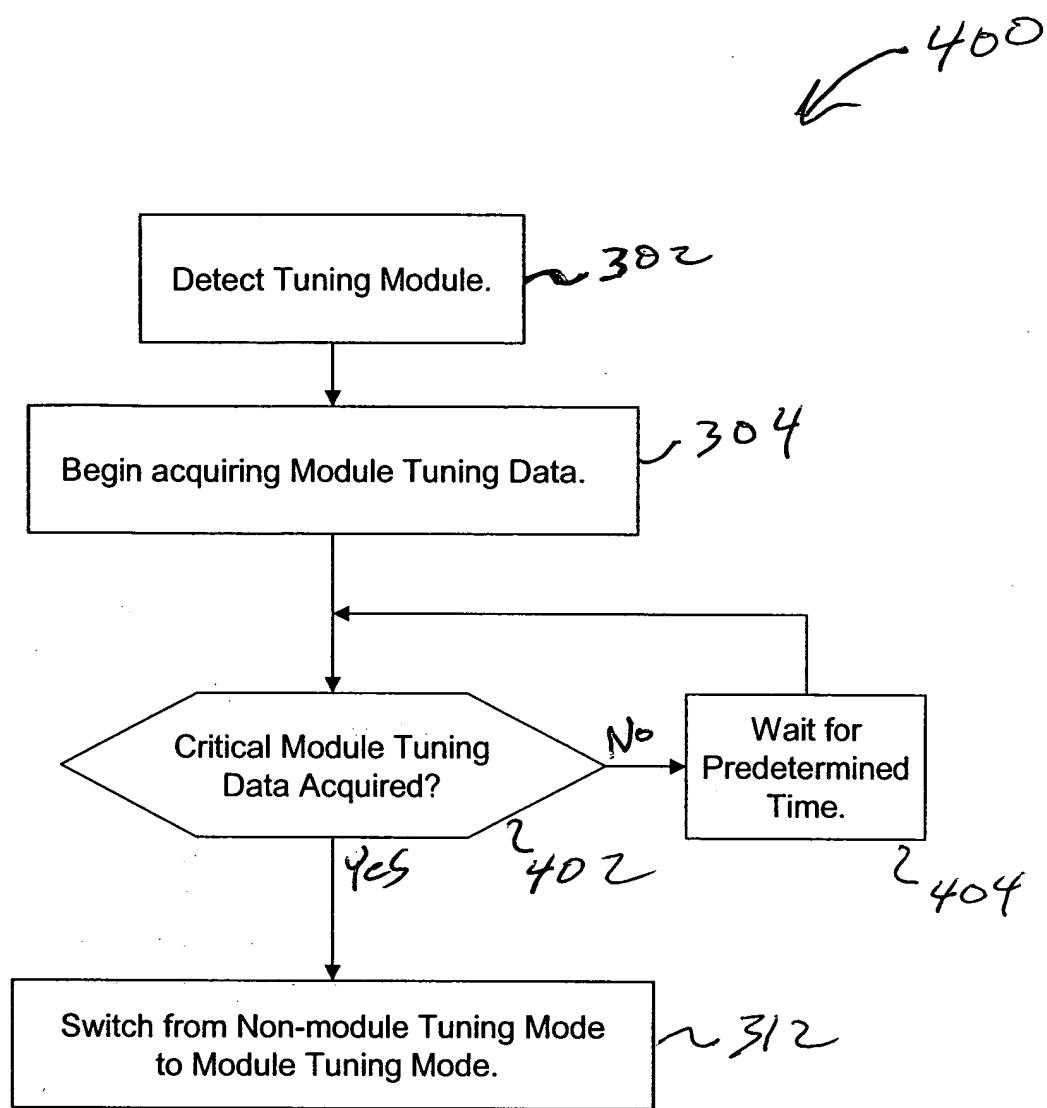


FIG. 10

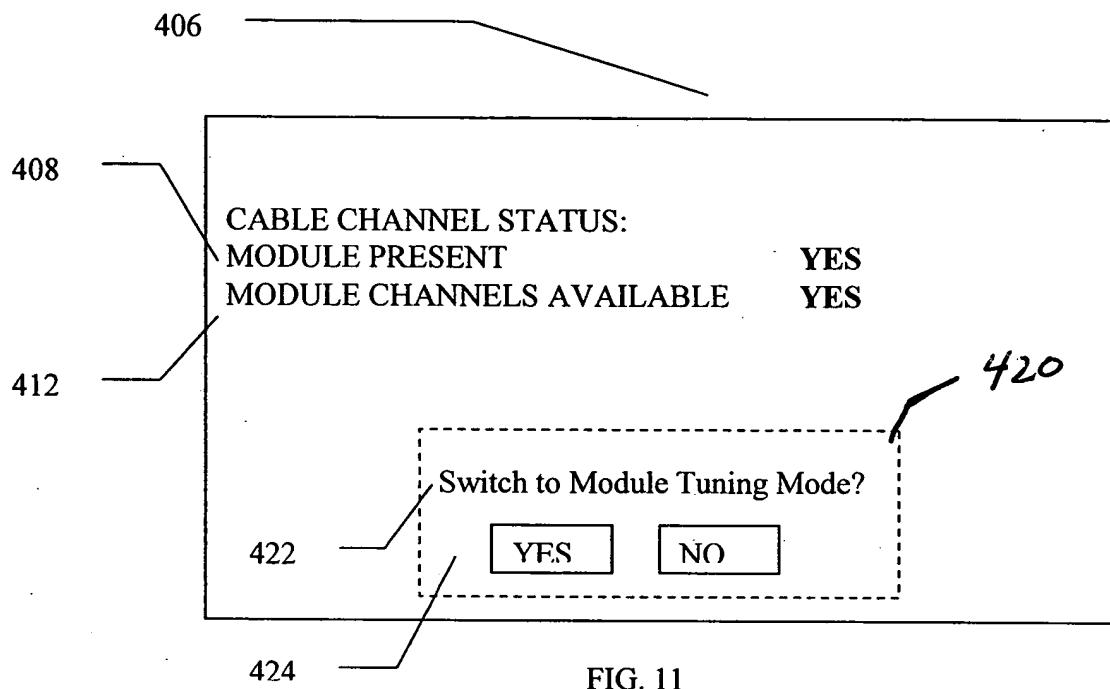


FIG. 11